

Application No. 10/761,023

Filed: January 20, 2004

TC Art Unit: 2882

Confirmation No.: 1880

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A crystal monochromator, comprising first and second crystal elements, having respective first and second crystal spacings chosen so that the crystal elements diffract radiation incident thereon at respective first and second wavelengths at a selected Bragg angle, the crystal elements having a common surface of curvature chosen so as to focus the radiation at the first and second wavelengths to a common focal area.

2. (Currently amended) A crystal monochromator according to claim 1 comprising first and second crystal elements, having respective first and second crystal spacings chosen so that the crystal elements diffract radiation incident thereon at respective first and second wavelengths at a selected Bragg angle, the crystal elements having a curvature chosen so as to focus the radiation at the first and second wavelengths to a common focal area,

wherein the first and second crystal elements comprise first and second crystals having respective front surfaces with the chosen curvature, positioned side by side so that the front surfaces define a common curve.

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3. (Currently amended) A crystal monochromator ~~according to claim 1~~ comprising first and second crystal elements, having respective first and second crystal spacings chosen so that the crystal elements diffract radiation incident thereon at respective first and second wavelengths at a selected Bragg angle, the crystal elements having a curvature chosen so as to focus the radiation at the first and second wavelengths to a common focal area,

wherein the first crystal element comprises a bulk crystal having a front surface with the chosen curvature, and the second crystal element comprises a thin layer formed on the front surface of the first crystal element.

4. (New) A crystal monochromator, comprising first and second crystal elements, having respective first and second crystal spacings d_1 and d_2 chosen so that the crystal elements diffract radiation incident thereon at respective first and second wavelengths λ_1 and λ_2 at a selected Bragg angle, such that $d_2/d_1 = \lambda_2/\lambda_1$, the crystal elements having a curvature chosen so as to focus the radiation at the first and second wavelengths to a common focal area.